



Institution of Engineering and Technology

IET Ottawa

MARCH 2007 Newsletter

Web Site: www.iee-ottawa.org

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Secretary: Martyn Delbridge,

March Technical Meeting:

“A Royal Air Force Engineer - some personal observations”

Something old, something new, something technical - and it's all true!

Courtside A Room, RA Centre, 2451 Riverside Drive

Thursday 15 March, 2007, 6.30 pm for optional dinner - 8.00 pm for the meeting

Squadron Leader Alan James BSc MSc CEng MRAeS RAF received his Bachelor of Science in Aeronautical Engineering at the University of Glasgow. He then became a Royal Air Force officer, followed by further engineering training at RAF Henlow and RAF College Cranwell. He undertook five tours on Nimrod long-range maritime patrol and strategic reconnaissance aircraft, and was then involved with major maintenance, research & development, systems investigation and modification design and finally engineering authority for avionics systems. He was HQ 18 Group staff officer at RAF Kinloss and then joined HQ Strike Command High Wycombe and JHQ Northwood.

He was the Squadron Engineering Officer for Canberra PR9 high-altitude / long range photo-reconnaissance and Devon C2 communications aircraft; he then became CO for Canberra Ground Maintenance School at RAF Wyton.

He has been logistics support forecaster for various aircraft - BAe 146, Tucano, Euro-fighter Typhoon, F-4J Phantom, Grob 103 and Boeing E3D AWACS at RAF Swanton Morley. He was Squadron Commander for aircraft electrical mechanic and technician training at both RAF Halton and RAF Cosford.

He obtained his MSc in Aeronautical Systems at RAF College Cranwell and Loughborough University. He has been a Radar and Avionic Systems analyst for UK MoD.

Presently he is on Loan Service with DND as airworthiness engineer - Directorate of Technical Airworthiness, NDHQ.

To fill in his spare time he has been a Member of Air-Britain Historians since 1970; a Member of the Royal Aeronautical Society; he holds a glider and private pilot's licence and was a gliding instructor for UK Air Cadets. He is an air show commentator (such as for the RAF Aerobatic Team, The Red Arrows). He is a member of the Air Display Association of Europe, a founding member and Chairman of the RAF Aviation Society and a part-time radio presenter. He is a Scottish Country dancer, an accomplished Burns Supper speaker, a cabinet-maker and a wood-turner.

The presentation is open to all. Please reserve (state if dinner is required) by contacting Hugh Reekie max-com@allstream.net or phone 613-728-5343.

Social hour in Courtside A 6 pm; Dinner 6.30 pm in the Field House Restaurant, presentation in Courtside A at 8 pm. Bar available.

Park in the East lot of the RA Centre and enter by the corner door. Dinner reservations appreciated by 12 March, but walk-in dinners without reservations are acceptable.

How to get there:

The RA Centre is located near Bronson and Riverside Drive.

Spring 2007 Program:

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| Mar 8th. or 14 th . 2007 | Visit to Fugro Air Surveys: Uplands – Visit starts at 6 pm. (details on next page) |
| Mar 15th. 2007 | Highlights from a Career in Military Aviation: RA Centre – Opt. Dinner 6:30; pm, Meeting 8 pm
Presentation: Alan James – Royal Air Force |
| April 19 th . 2007 | Light Rail in Ottawa: RA Centre – Exhibition from 6pm; Optional Dinner 6:30 pm, Meeting 8 pm
Presentation: David Jeanes, P.Eng. President, Transport 2000 Canada |
| April 26 th . 2007 | Diesel fuels and Electronic emissions control: RA Centre – Meeting 8 pm
Presentation: Brent Rubeli, Natural Resources Canada |
| May 24 th . 2007 | Annual General Meeting – Britannia Yacht Club |

March Site Visit:

“Fugro’s Airborne Geophysics Survey Activities”

Hosted by Richard Smith – Fugro N.V.

Uplands Airport

Thursday 8th. March or Wednesday 14th. March. (date to be confirmed) 2007, 6.00 pm

A rare opportunity has recently been offered: Fugro, a world-wide airborne geophysics company headquartered in The Netherlands, has an aircraft and offices in Ottawa, and the company’s Richard Smith is pleased to welcome a small group of engineers for a short tour. There is an opportunity to look at their CASA 212 aircraft during one of its layovers in the city; it has an active airborne electromagnetic system installed. This will be followed with a presentation describing the company, the services offered, and how the data gathered from the airborne measurements are processed to produce end-user information –such as maps and reports. Visit <http://www.fugroairborne.com/>

We meet in the lounge inside the main entrance at the north-west corner of the Shell Aerocentre, 300 Comet Pvt at 5.50 pm, for a 6 pm start. After a review of the electronics and hardware on the aircraft we will adjourn to a boardroom for an informal presentation. This activity is in support of **Fugro’s Outreach Program** for the **International Year of Planet Earth (IYPE)**; it has been co-ordinated by IET’s David Boteler and Hugh Reekie, together with Peter Fernberg

of NRCan’s Geomagnetic Laboratory in Ottawa. The two selected date opportunities suggest a good chance that the aircraft will be available.

Please reserve by contacting Hugh Reekie by 3rd March. The selected date will be known by 5th March; soon afterwards you will be contacted with a firm date and any other possible changes of arrangements.

Some of us are likely to go on to a local hostelry for a pub supper after the visit – probably the Royal Oak, Hunt Club. Everyone is welcome to join us. This activity is jointly planned by the IET Ottawa Branch and the IEEE-AESS Ottawa Chapter. It is limited to 18 people on a first-come basis; open to all. For reservations contact Hugh Reekie max-com@alltream.net 613-728-5343.

How to get there:

Go south on the Airport Parkway and approach the airport. After passing the underpass, take the first street left (Airbus Pvt). Then, at the junction, turn left. The Aerocentre is on the right; there is a big parking lot.

Chairman’s Column - Opportunities, Scheduling and Volunteerism

Many of you who have attended meetings at the RA Centre will have noticed an increased turnout recently. Whether this is due to the topic or speaker selected, to the improved publicity, or to the extra lead time usually given for notices is very difficult to tell; but improvements have been made. The IET Ottawa Branch Executive acts to serve the interests of all Electrical Engineers in the Ottawa area, and IET members in particular.

But the Executive, and also the speakers themselves, are all volunteers – no-one is paid for the time and effort spent in arranging and presenting the local talks and tours. For many of the worthwhile events, it takes a while for an idea to be converted - by contacts and negotiation - into a planned, publicized event. Due to various pressures and unforeseen circumstances, some events have been deferred or cancelled. This happened with the Ottawa Light Rail mini-symposium last November; three speakers had agreed to attend; many will recall the changed situation with the new Mayor and Council. Also, the RBR presentation for February was announced in January to assist with people planning to attend. Too bad that work pressures changed plans, and RBR arranged for just the field visit. Using goodwill and contacts, an alternate speaker was arranged for the RA Centre February timeslot, at very short notice; so if an IET member had “penciled in the date” on a calendar - and looked forward to a pub supper with the boys and then an interesting presentation – well, that is what they got, albeit on another topic.

It was disheartening, therefore, to receive a strong complaint that events for February had changed around a bit, and at short notice. But this is what life and volunteerism is

all about. Communications of this nature do little good; if they continue, the volunteers would lose their energy or quit – and we would all be the losers; we are all part of a community. To the extent that you have the time and interest, please use them, with your experience, to serve on our Executive; the Nominating Committee is being formed, and elections will take place at the AGM in May. But, if you wish to be on the other side - and just take what is available with these tours and presentations - please be grateful for what has been arranged. This month we have a talk from a very good speaker – Alan James – whose stories and memories will be of interest to many of us. An Ottawa Light Rail presentation is scheduled for March, and will include a mini-exhibition, with posters, maps and models of possible rail stations.

We have at least two field trips coming up; the first, to Fugro, an Airborne Geophysics Survey Company, at Uplands Airport, has been in the planning stages for a few weeks, but the available timeslot came up at short notice. Please use the opportunity if time and interest permits. A second trip is to the Diesel Fuel and Engine Testing Facilities at EMR Bells Corners daytime in early May; an evening presentation on the subject is booked for Thurs 26th April. Yet more trips and presentations are in the pipeline. Your Executive is there to help; we can’t do the impossible; and we are all volunteers. I hope to see some new faces presented by the Nominating Committee at the AGM.

- - - Hugh Reekie Chair

Report on the Charter and Bye-Laws revision Working Party

The WP has now completed its work except for a few odds and ends and one possibly contentious issue. We have, I believe, changed the governance documents so that democracy and membership control has been re-established.

The principal change is to require the Board of Directors to have to take into account the views of Council and to explain and defend any variations in their decisions from Council's views.

To ensure that Council is not ridden-over rough shod, Council now has the power to veto any changes in its regulations, and now elects its own chair (formerly it was chaired by the President, which some of us thought was a conflict of interest in that the chair was advising itself). Similarly, the Trustees are now ex-officio members of Council without votes, for the same reason.

The possibly contentious issue stems from the WP ensuring that Branches (now called Networks) were reintroduced into the governance of the IET, having been summarily ejected by the BoT a few years ago, by giving

regions (groups of Branches) the power to appoint Council representatives. Council has decided that the branches are sufficiently well represented through the appointment of members from the Members Board, who are all Branch representatives. Council wants the majority of members to be directly elected.

This is a complex issue and I don't know if it is worth arguing as both approaches have their pros and cons. I think that, as the WP has granted Council the right to change their regulations, subject to approval by the BoT, we should abide by their views.

I believe that the new proposals will go far to putting members back in charge of the IET so I urge everyone to support their adoption when the voting begins in a month or so.

Colin Billowes
Ottawa Branch
Member of the Working Party

Report on the 2007 Faraday Lecture presentation

prepared by John Vines, Ottawa Branch

The Faraday Lecture transmission attracted about forty students to the National Museum of Science and Technology on Wednesday February 7th. For information on the lecture go to: <http://www.iee.org/Events/Lectrs/Faraday/2007/>

Before the transmission, Stevie Malanka, a young lady of 20 years, who drives racing cars, gave the students some idea as to what is involved in driving and maintaining racing cars. She did this well. See note below

This year the lecture was not broadcast by satellite but by using a WEB TV cast. We did not know about this until Friday 2nd February! Using the Museum's broadband internet connection and a laptop, we found that the resolution of the WEB TV picture on the big screen was acceptable, but not perfect, and there were a few internet slowdowns. However the lecture was well received by the students

The lecture was well structured and entertaining, though maybe, too many topics were explored.

Extract from a letter to the National Museum of Science and Technology from the Faraday team in London

"On behalf of the Institution of Engineering and Technology, we should like to express our sincere thanks to those members of your staff involved in making the arrangements for the presentation of 2007 IET Faraday, Winning Formula, Technology in the Fast Lane, at the Museum via a web cast on 6 February. In particular, our thanks go to Michel

Labrecque who has for many years coordinated the Museum's support for the Faraday Lecture.

The work involved is not limited to setting up the technical facilities but includes contacting schools, identifying pre-lecture speakers, providing relevant on-stage demonstrations and even acting as MC for the day. All of this requires a considerable amount of time, effort and enthusiasm. The success of the arrangements was proved by the appreciative reaction of the students who attended."

Note on Stefany Malanka:

Stefany Malanka, or "Stevie" as she's known to her friends, was seen as having a really good chance of winning Star Racer. She raced karts and "rose as high as a driver can at that level", bought a car with her dad and then moved up to open wheel racing.

Not only is Stevie an accomplished driver but she is also studying to become a bio-engineering scientist. She has the brains to back up the driving. Like most racers, she has struggled to find a sponsor big enough, to make her racing career really happen. She came back to Karting just to qualify for Star Racer, but it was her open-wheel experience that made her an 'Outsider'. In the end, she was one of seven finalists to compete in the final race - but it wasn't her who got to take home the title of Star Racer.

Report on the February 2007 Technical Meeting

“Networked Hi-Density Smart Meters for Power Management” by Wes Biggs

prepared by John Vines, Ottawa Branch

The Province of Ontario has established targets for the installation of 800,000 smart meters by December 2007, and installation of smart meters for all Ontario condominium corporations by December 2010. In Ontario there are over 1,400,000 condominium and apartment dwellers who share a common electricity meter for billing purposes.

Wes Biggs described the Triacta Hi-Density Smart Meter Hardware and Meter Management Software and how this local company is developing a next generation smart meter solution for the multi-tenant market to enable the power to each unit in a complex to be monitored. He noted that typically 20 percent of the tenants were consuming about 50 percent of the power. The Triacta system will permit the managers of a building to retro-fit the equipment and then apportion the cost of power consumed to

those who use it. It is not legal to charge the tenants at a higher rate than the cost of supply.

Discussion followed on who might win, who might lose in the rollout of smart meters to households in Ottawa and what additional benefits can be derived from a ubiquitous deployment of smart meter technology across the province. Despite doubts on the long term cost effectiveness of the whole smart metering programme, there was consensus that householders will have learned how to adjust their electrical power consumption to different times of the day, if they are to benefit from the proposed new off peak rates.

Thanks to Wes Biggs for providing an opportunity to better understand the complexity of metering and demonstrating some of Triacta's metering solutions.

YOUR EMAIL ADDRESS

For some time we have been sending notices to members by Email. This is to save the cost of paper and postage, but also provide updates and reminders that you would not receive in time from Canada Post. We send at least one paper mailing to all Ottawa Branch members each year.

You are receiving this paper copy of the newsletter because we do not have your Email address or the address that we do have does not work. If you wish to receive notices and newsletters by Email, please send your Email address to jvines@iee.org and the address will be placed on the list. Thanks

Note: If you change your home address, telephone number or Email address, please inform the IET in London. The change may be made by letter or sending an Email to membership@theiet.org, or by entering the change directly via the IET WEB page. Notification to jvines@iee.org will also help locally.

The 2006/2007 Ottawa Branch Committee consists of:

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